PCT09

DATE: 06/22/2001 RAW SEQUENCE LISTING TIME: 11:06:45 PATENT APPLICATION: US/09/673,400A

Input Set : A:\Albre4.app

Output Set: N:\CRF3\06222001\1673400A.raw

```
ENTERED
    3 <110> APPLICANT: SPECHT, THOMAS
            HINZMANN, BERND
    Δ
    5
            SCHMITT, ARMIN
    6
            PILARSKY, CHRISTIAN
    7
            DAHL, EDGAR
            ROSENTHAL, ANDRE
   10 <120> TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM HYSTEROMYOMIC TISSUE
   12 <130> FILE REFERENCE: ALBRE 4
   14 <140> CURRENT APPLICATION NUMBER: 09/673,400A
--> 15 <141> CURRENT FILING DATE: 2001-05-29
   17 <150> PRIOR APPLICATION NUMBER: PCT/DE99/01178
   18 <151> PRIOR FILING DATE: 1999-04-14
   20 <160> NUMBER OF SEQ ID NOS: 57
   22 <170> SOFTWARE: PatentIn Ver. 2.1
   24 <210> SEO ID NO: 1
   25 <211> LENGTH: 779
   26 <212> TYPE: DNA
   27 <213> ORGANISM: Homo sapiens
   29 <400> SEQUENCE: 1
   30 agcgagcagc ggcggcggcg cggagagacg cagcggaggt tttcctggtt tcggacccca 60
   31 geggeeggat ggtgaaatee teeetgeage ggateeteaa tageeaetge ttegeeagag 120
   32 agaaggaagg ggataaaccc agcgccacca tccacgccag ccgcaccatg ccgctcctaa 180
   33 geetgeacag eegeggegge ageageagtg agagtteeag ggteteeete eactgetgta 240
   34 gtaacceggg teeggggeet eggtggtget cetgatgeee etcacceace cetgaagate 300
   35 ccaggtgggc gagggaatag tcaaagggac cacaatcttt cagctaactt attctactcc 360
   36 gatgategge tgaatgtaae agaggaaeta aegteeaaeg acaagaegag gatteteaae 420
   37 gtccagtcca ggctcacaga cgccaaacgc attaactggc gaacagtgct gagtggcggc 480
   38 actgetetae ategagatee egggeggege getgeeegag gggageaagg acagetttge 540
   39 agtteteetg ggagtteget gaggageage tgegaggeeg accatgtett aatttgette 600
   40 cacaagaacc ccgaggacag agccgccttg ctccgaacct tcagcttttt cgggcttgag 660
   41 attttgagac cggggcatcc cctttgttcc ccaaqaqacc cgacgettgc ttcatgggcc 720
   42 tacaagtttc qaqaqaqat ctttqqqqaq aqqaaqaaqq attaqqqqcc qcqtcqqqt 779
   45 <210> SEQ ID NO: 2
   46 <211> LENGTH: 2310
   47 <212> TYPE: DNA
   48 <213> ORGANISM: Homo sapiens
   50 <400> SEQUENCE: 2
   51 gttctccgaa acatggagtc ctgtaggcaa ggtcttacct gaatcaggat gagggagtgg 60
   52 tgggtccagg tggggctgct ggccgtgccc ctgcttgctg cgtacctgca catcccaccc 120
   53 cctcagcgct cccctgccct tcactcatgg aagtcttcag gcaagttttt cacttacaag 180
   54 ggactgcgta tettetacea agactetgtg ggtgtggttg gaagtecaga gatagttgtg 240
   55 cttttacacg gttttccaac atccagctac gactggtaca agatttggga aggtctgacc 300
   56 ttgaggtttc atcgggtgat tgcccttgat ttcttaggct ttggcttcag tgacaaaccg 360
   57 agaccacatc actattccat atttgagcag gccagcatcg tggaagcgct tttgcggcat 420
   58 ctggggctcc agaaccgcag gatcaacctt ctttctcatg actatggaga tattgttgct 480
   59 caggagette tetacaggta caagcagaat egatetggte ggettaceat aaagagtete 540
```

60 tgtctgtcaa atggaggtat ctttcctgag actcaccgtc cactccttct ccaaaagcta 600

Input Set : A:\Albre4.app

```
61 ctcaaagatg gaggtgtgct gtcacccatc ctcacacgac tgatgaactt ctttgtattc 660
62 totogaggto toaccocagt otttgggccg tatactcggc cototgagag tgagotgtgg 720
63 gacatgtggg cagggatccg caacaatgac gggaacttag tcattgacag tctcttacag 780
64 tacatcaatc agaggaagaa gttcagaagg cgctgggtgg gagctcttgc ctctgtaact 840
65 atccccattc attttatcta tgggccattg gatcctgtaa atccctatcc agagtttttg 900
66 gagetgtaca ggaaaaeget geegeggtee acagtgtega ttetggatga ceacattage 960
67 cactatccac agctagagga tcccatgggc ttcttgaatg catatatggg cttcatcaac 1020
68 teettetgag etggaaagag tagetteeet gtattacete eectacteee ttatgtgttg 1080
69 tgtattccac ttaggaagaa atgcccaaaa gaggtcctgg ccatcaaaca taattctctc 1140
70 acaaagtcca ctttactcaa attggtgaac agtgtatagg aagaagccag caggagctct 1200
71 qactaaqqtt qacataataq tccacctccc attactttqa tatctqatca aatqtataqa 1260
72 cttggctttg ttttttgtgc tattaggaaa ttctgatgag cattactatt cactgatgca 1320
73 gaaagacgtt cttttgcata aaagactttt tttaacactt tggacttctc tgaaatattt 1380
74 agaagtgcta atttctggcc cacccccaac aggaattcta tagtaagggg gaggagaagg 1440
75 ggggeteett eeeteteete gaatgaegtt atgggeaeat geettttaaa agttetttaa 1500
76 gcaacacaga gctgagtcct ctttgtcata cctttggatt tagtgtttca tcagctgttt 1560
77 ttagttataa acattttgtt aaaatagata ttggtttaaa tgatacagta ttttaggtat 1620
78 gatttaagac tatgatttac ctatacatta tatatatttt ataaagatac taaaccagca 1680
79 taccettact etgecagagt agtgaageta attaaacacg tttggtttet gaataaattg 1740
80 aactaaatee aaactattte etaaaateae aggacattaa ggaceaatag eatetgtgee 1800
81 agagatgtac tgttattagc tgggaagacc aattctaaca gcaaataaca gtctgagact 1860
82 cctcatacct cagtggttag aagcatgtct ctcttgagct acagtagagg ggaagggatt 1920
83 gttgtgtagt caagtcacca tgctgaatgt acactgattc ctttatgatg actgcttaac 1980
84 tececactge etgteccaga gaggetttee aatgtagete agtaatteet gttactttae 2040
85 agacaggaaa gttccagaaa ctttaagaac aaactctgaa agacctatga gcaaatggtg 2100
86 ctgaatactt tttttttaaa gccacatttc attgtcttag tcaaagcagg attattaagt 2160
87 gattatttaa aattcgtttt tttaaattag caacttcaag tataacaact ttgaaactgg 2220
88 aataagtgtt tattttctat taataaaaat gaattgtgac aaaaaaaaa aaaggcttcg 2280
89 gcttttgaag tctatgtgtg ggggggggt
                                                                      2310
92 <210> SEQ ID NO: 3
93 <211> LENGTH: 854
94 <212> TYPE: DNA
95 <213> ORGANISM: Homo sapiens
97 <400> SEQUENCE: 3
98 ctgcacgggg gctcgggctc actataaaag gtgggagcgc gtggtgcccc agcaacgacg 60
99 agtttcagaa cgatggagag ctcccgcgtg aggctgctgc ccctcctggg cgccgccctg 120
100 ctgctgatgc tacctctgtt gggtacccgt gcccaggagg acgccgagct ccagccccga 180
101 gccctggaca tctactctgc cgtggatgat gcctcccacg agaaggagct gatcgaagcg 240
102 ctgcaagaag tcttgaagaa gctcaagagt aaacgtgttc ccatctatga gaagaagtat 300
.103 ggccaagtcc ccatgtgtga cgccggtgag cagtgtgcag tgaggaaagg ggcaaggatc 360
104 gggaagctgt gtgactgtcc ccgaggaacc tcctgcaatt ccttcctcct gaagtgctta 420
105 tgaaggggcg tccattctcc tccatacatc cccatccctc tactttcccc agaggaccac 480
106 accttcctcc ctggagtttg gcttaagcaa cagataaagt ttttattttc ctctgaaggg 540
107 aaagggetet titeetgetg titeaaaaat aaaagaacae attagatgit actgiigtaa 600 -
108 gaataatgcc ttgtatggtg ttgatacgtg tgtgaagtat tcttatttta tttgtctgac 660
109 aaactcttgt gtacctttgt gtaaagaagg gaagctttgt ttgaaaattg tatttttgta 720
110 tgtggcatgg cagaatgaaa attagatcta gctaatctcg gtagatgtca ttacaacctg 780
111 gaaaataaat caccctaagt gacacaaatt gaagcatgta caaattatac ataataaagt 840
112 gtttttaata attg
```

Input Set : A:\Albre4.app

```
115 <210> SEQ ID NO: 4
116 <211> LENGTH: 1112
117 <212> TYPE: DNA
118 <213> ORGANISM: Homo sapiens
120 <400> SEQUENCE: 4
121 eqceaqeece qteqqqqqee eqqaqqqae teqqaqeggg ceaaggggeg geteeggegg 60
122 gcggactcgg agcgggcggc ggagtgaccc ggacagctgt cctctctgac accaccccgg 120
123 cctgcctctt tgttgccatg agagctgcct acctcttcct gctattcctg cctgcaggct 180
124 tgctggctca gggccagtat gacctggacc cgctgccgcc gttccctgac cacgtccagt 240
125 acacccacta tagcgaccag atcgacaacc cagactacta tgattatcaa gaggtgactc 300
126 ctcggccctc cgaggaacag ttccagttcc agtcccagca gcaagtccaa caggaagtca 360
127 teccageece aaceeeagaa eeaggaaatg eagagetgga geeeacagag eetgggeete 420
128 ttgactgccg tgaggaacag tacccgtgca cccgcctcta ctccatacac aggccttgca 480
129 aacagtgtct caacgaggtc tgcttctaca gcctccgccg tgtgtacgtc attaacaagg 540
130 agatetqtqt teqtaeagtg tgtgeecatg aggageteet eegagetgae etetgteggg 600
131 acaagttete caaatgtgge gtgatggeea geageggeet gtgeeaatee gtggeggeet 660
132 cctgtgccag gagctgtggg agctgctagg gtggtgctgg catcctgagt cctggccctc 720
133 ctgqqatctg qqqccctcqq qccctqcctg acctggtgct tttttcccca tccccatgtt 780
134 ccttttattc tgtaaaaagt tagtggactg cagccctggg ggttgcaggc tgcggtgcct 840
135 caggececte etteageetg tggecaeete tggggeaega tgggggetee ceaetgeeea 900
136 gtctgcccct cgggttgggg gagtatccca ggcctctctg tgggaccctg ggccctgacg 960
137 ggccttctca gcccgttttg aggacagaca gtcccccgag gtaggctaca tccccccacc 1020
138 ccagctggtc tgcttggatt tcctacagcc cccgtgggca tggaccacct ttattttata 1080
139 caaaattaaa aacaagtttt tacaaaaaaa aa
142 <210> SEQ ID NO: 5
143 <211> LENGTH: 1051
144 <212> TYPE: DNA
145 <213> ORGANISM: Homo sapiens
147 <400> SEQUENCE: 5
148 gegeaggege gaagaagetg geaggggeae gageeggggg egggtttgaa gaegegtegt 60
149 tgggttttgg aggccgtgaa acagccgttt gagtttggct gcgggtggag aacgtttgtc 120
150 aggggcccgg ccaagaagga ggcccgcctg ttacgatggt gtccatgagt ttcaagcgga 180
151 accgcagtga ccggttctac agcacccggt gctgcggctg ttgccatgtc cgcaccggga 240
152 cgatcatcct ggggacctgg tacatggtag taaacctatt gatggcaatt ttgctgactg 300
153 tggaagtgac tcatccaaac tccatgccag ctgtcaacat tcagtatgaa gtcatcggta 360
154 attactattc gtctgagaga atggctgata atgcctgtgt tctttttgcc gtctctgttc 420
155 ttatgtttat aatcagttca atgctggttt atggagcaat ttcttatcaa gtgggttggc 480
156 tgattccatt cttctgttac cgactttttg acttcgtcct cagttgcctg gttgctatta 540
157 gttctctcac ctatttgcca agaatcaaag aatatctgga tcaactacct gattttccct 600
158 acaaagatga cctcctggcc ttggactcca gctgcctcct gttcattgtt cttgtgttct 660
159 ttgccttatt catcattttt aaggcttatc taattaactg tgtttggaac tgctataaat 720
160 acatcaacaa ccgaaacgtg ccggagattg ctgtgtaccc tgcctttgaa gcacctcctc 780
161 agtacgtttt gccaacctat gaaatggccg tgaaaatgcc tgaaaaagaa ccaccacctc 840
162 cttacttacc tgcctgaaga aattctgcct ttgacaataa atcctatacc agctttttgt 900
163 ttgtttatgt tacagaatgc tgcaattcag ggctcttcaa acttgtttag atataaaata 960
164 tggtggccct ttggttttaa agcaatttat tttccaaaac actaagggag cctttttgga 1020
                                                                       1051
165 catctggtta aacggccttt ttgggttttt t
168 <210> SEO ID NO: 6
169 <211> LENGTH: 1516
```

Input Set : A:\Albre4.app

```
170 <212> TYPE: DNA
171 <213> ORGANISM: Homo sapiens
173 <400> SEQUENCE: 6
174 gttgtcctca tccctctcat acagggtgac caggacgttc ttgagccagt cccgcatgcg 60
175 cagggggaag aagatccatg agaaggagaa gcgcctggag gcaggagacc accccgtgga 120
176 gctgctggcc cgggacttcg agaagaacta taacatgtac atcttccctg tacactggca 180
177 gttcqqccaq ctqqaccaqc acccattqa cqqqtacctc tcccacaccq aqctqqctcc 240
178 actgcgtgct cccctcatcc ccatggagca ttgcaccacc cgctttttcg agacctgtga 300
179 cctggacaat gacaagtaca tcgccctgga tgagtgggcc ggctgcttcg gcatcaagca 360
180 gaaggatate qacaaggate ttgtgateta aatecaetee ttecaeagta eeggattete 420
181 tetttaacce teeettegt gttteeceea atgtttaaaa tgtttggatg gtttgttgtt 480
182 ctgcctggag acaaggtgct aacatagatt taagtgaata cattaacggt gctaaaaatg 540
183 aaaattctaa cccaagaaca tgacattctt agctgtaact taactattaa ggccttttcc 600
184 acacgcatta atagteecat ttttetettg ceatttgtag etttgeecat tgtettattg 660
185 ggcacatggg gtggacacgg atctgctggg ctctgcctta aacacacatt gcagcttcaa 720
186 cttttctctt tagtgttctg tttgaaacta atacttaccg agtcagactt tgtgttcatt 780
187 tcatttcagg gtcttggctg cctgtgggct tccccaggtg gcctggaggt gggcaaaggg 840
188 aagtaacaga cacacgatgt tgtcaaggat ggttttggga ctagaggctc agtggtggga 900
189 gagatecetg cagaacecac caaceagaac gtggtttgee tgaggetgta actgagagaa 960
190 agattctggg gctgtgttat gaaaatatag acattctcac ataagcccag ttcatcacca 1020
191 tttcctcctt tacctttcag tgcagtttct tttcacatta ggctgttggt tcaaactttt 1080
192 gggagcacgg actgtcagtt ctctgggaag tggtcagcgc atcctgcagg gcttctcctc 1140
193 ctctgtcttt tggagaacca gggctcttct caggggctct agggactgcc aggctgtttc 1200
194 agccaggaag gccaaaatca agagtgagat gtagaaagtt gtaaaaataga aaaagtggag 1260
195 ttggtgaatc ggttgttctt tcctcacatt tggatgattg tcataaggtt tttagcatgt 1320
196 teeteetttt eteeaceete eeettttte eeecaagaat acagagaaaa eteaaagtta 1380
197 atggggaggg tcggatccta caggcctgag aatcggtcaa ctccaagcat ttcatggaaa 1440
198 aggcggcttc ctaattaatc ctacaaaccc ccacccagga tggtgagggg tttcaccaat 1500
199 tcctccaaaa ataaaa
202 <210> SEQ ID NO: 7
203 <211> LENGTH: 2367
204 <212> TYPE: DNA
205 <213> ORGANISM: Homo sapiens
207 <400> SEQUENCE: 7
208 cgccgggact cttggcgggt gaaggtgtgt gtcagctttt gcgtcactcg agccctgggc 60
209 gctgcttgct aaagagccga gcacgcgggt ctgtcatcat gtcgcgttac gggcggtacg 120
210 gaggagaaac caaggtgtat gttggtaacc tgggaactgg cgctggcaaa ggagagttag 180
211 aaagggcttt cagttattat ggtcctttaa gaactgtatg gattgcgaga aatcctccag 240
212 gatttgcctt tgtggaattc gaagatccta gagatgcaga agatgcagta cgaggactgg 300
213 atggaaaggt gatttgtggc teeegagtga gggttgaact ategaeagge atgeetegga 360
214 gatcacgttt tgatagacca cctgcccgac gtccctttga tccaaatgat agatgctatg 420
215 agtgtggcga aaagggacat tatgcttatg attgtcatcg ttacagccgg cgaagaagaa 480
216 gcaggtcacg gtctagatca cattctcgat ccagaggaag gcgatactct cgctcacgca 540
217 gcaggagcag gggacgaagg tcaaggtcag catctcctcg acgatcaaga tctatctctc 600
218 ttcgtagatc aagatcagct tcactcagaa gatctaggtc tggttctata aaaggatcga 660
219 ggtatttcca atccccqtcq aggtcaaqat caagatccag gtctatttca cgaccaaqaa 720
220 gcagccgatc aaagtccaga tctccatctc caaaaagaag tcgttcccca tcaggaagtc 780
221 ctcgcagaag tgcaagtcct gaaagaatgg actgaagctc tcaagttcac cctttaggga 840
222 aaagttattt tgtttacatt attataaggg atttgtgatg tctgtaaagt gtaacctagg 900
```

Input Set : A:\Albre4.app

```
223 aaagataatt caaccatcta atcaaaatgg atctggatta ctatgtaaat tcacagcagt 960
224 aagataatat aaattttgtt gaatgtatta acatcatatg gtctgaaaat gtgggttttt 1020
225 atttggcaca tttaaataaa atgtttctaa ctagattttt gatttgtgtt caatattaac 1080
226 acttettaat ttgatatatt tgagagteag acattataat tgttaacett atteataeat 1140,
227 acctacattc agaattgaaa ggtgttggtt aagtcttgaa catcactatt ctatgcataa 1200
228 aacttggcca ggatcttaag ggactttgaa aattccatct tacccttgta gctctgggta 1260
229 agatgacctg agtcccttat gatacagcct gaatgcatca tgacagatcc ttaagttagc 1320
230 taatccqttt qaaqttqqtq ttaqtaqqta ttqtatgatc agtggtgaag caagtaggac 1380
231 cactgatgtg tctaaatgag catgacagga actaaacgaa actgattaaa tgtatgagaa 1440
232 atagaaactg atttctggat gatctttata ctaattgcag ctttcaggct actaggtggc 1500
233 ataqtqttaa ttaqqactcc ccaagatatg gggagttcta ctctcaatgg tcttgtttct 1560
234 ttgctttcta cattagttaa ccaqttttat accaaaaaat gcatgtttga ggaattgtct 1620
235 gaaattggga caaaacacct tcatgtaaac cagetttgca aaattttcca geecagatac 1680
236 tottoatota ttoaaatqqa ttqtottatt otgagcaaag acctgttgtt aatottoaag 1740
237 ctaqqttttq caqttcccaa ccacaacatt cttctatttt gccaggctgg tgcaaagtaa 1800
238 ttaaagatgt caatcagaaa tgtcaatgag actaaagtgg ttttgtaaat ctcagctata 1860
239 tttagcaaca ctccatgtag ctaatatttt ttggtagcat ctggtagacc ttagaatgtt 1920
240 acatagccag taggttettt atteaaattt taagtatett aagaatagta gggeagtaae 1980
241 agttactttt qaqaqttttc tqqtcaagct tttaccaggc attctctagc cttggtacaa 2040
242 aaaaaaaaa aacctgctgg ttgcgcagat acctaggctt gtccatttta tgcatttcag 2100
243 caaagtcatt ggatactatt gcaacttggg aatactggtc tgcatcaagt ttattcggta 2160
244 gtttgaccgc tagtatgttg gaagttattt ggattgtttt tggaattttg actggctgaa 2220
245 ttatggttgg tataaagtta tgtgtataac tggcaggctt atttatctgt tgcacttggt 2280
246 tagctttaat tgttctgtat tatttaaaga taagtttact caacaataaa tctgcagaga 2340
247 ttgaacaaat aaaaaaaaa aaaaaaa
250 <210> SEQ ID NO: 8
251 <211> LENGTH: 568
252 <212> TYPE: DNA
253 <213> ORGANISM: Homo sapiens
255 <400> SEQUENCE: 8
256 ctcgagccgt gggcagtggc cgcgaatgcg cggagacact gaccttcagc gcctcggctc 60
257 cagegecatg gegeceteca ggaagttett egttggggga aactggaaga tgaaegggeg 120
258 qaaqcaqaqt ctqqqqqaqc tcatcgqcac tctgaacgcg gccaaggtgc cggccgacac 180
259 cgaqqtqqtt tqtqctcccc ctactgccta tatcgacttc gcccggcaga agctagatcc 240
260 caagattgct gtggctgcgc agaactgcta caaagtgact aatggggctt ttactgggga 300
261 gatcagecet ggeatgatea aagaetgegg ageeaegtgg gtggteetgg ggeaeteaga 360
262 gagaaggcat gtctttgggg agtcagatga gctgattggg cagaaagtgg cccatgctct 420
263 ggcagaggga ctcggagtaa tcgcctgcat tggggagaag ctagatgaaa gggaagctgg 480
264 catcactgag aatgttgttt tcgagcagac aaaggtcatc ggggatgact tgaaggactg 540
265 gatcaagttc gtcctggcct gttggcct
268 <210> SEQ ID NO: 9
269 <211> LENGTH: 1775
270 <212> TYPE: DNA
271 <213> ORGANISM: Homo sapiens
273 <400> SEQUENCE: 9
274 ctcgggggcc attttgtgaa gagacgaaga ctgagcggtt gtggccgcgt tgccgacctc 60
275 cagcagcagt cggcttctct acgcagaacc cgggagtagg agactcagaa tcgaatctct 120
276 tetecetece ettettqtqa qatttttttq atetteaget acatttteqq etttqtqaga 180
277 aaccttacca tcaaacacga tggccagcaa cgttaccaac aagacagatc ctcgctccat 240
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/673,400A

DATE: 06/22/2001 TIME: 11:06:47

Input Set : A:\Albre4.app
Output Set: N:\CRF3\06222001\1673400A.raw

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date